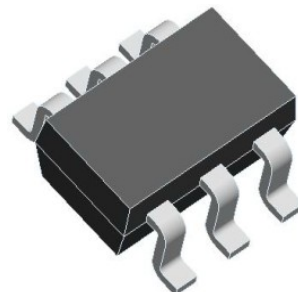


Plastic-Encapsulate ESD Protection Diodes

Features

- Low leakage current
- SOT-23-6L surface mount package
- IEC 61000-4-2 (ESD Air): $\pm 30\text{kV}$
- IEC 61000-4-2 (ESD Contact): $\pm 30\text{kV}$
- IEC 61000-4-5 (Lightning 8/20 μs): 5A

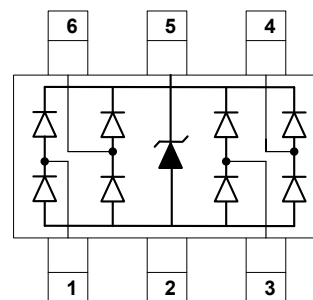


SOT-23-6

MARKING: *05

Applications

- Automotive Applications
- CAN Bus
- Electronic Control Units
- Body Control Units
- ADAS Control Units
- Power Train Control Units



Electrical Characteristics (TA=25°C unless otherwise specified)

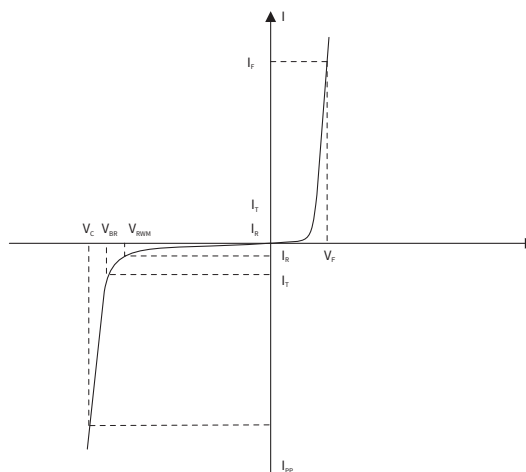
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}	Pin 5 to GND, I/O-GND			5.0	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$ (Pin 5 to GND, I/O-GND)	6.0	7.5	8.5	V
Reverse Leakage Current	I_R	$V_{RWM} = 5.0\text{V}$			0.5	μA
Forward Breakdown Voltage	V_F	$I_F = 15\text{mA}$, GND to Pin 5/IO		0.8	1.0	V
Clamping Voltage	V_C	$I_{PP} = 4.5\text{A}$ (8 x 20 μs pulse, I/O to GND)		14.0	15.0	V
Clamping Voltage	V_C	$I_{PP} = 17\text{A}$ (8 x 20 μs pulse, Pin 5 to GND)		16.0	18.0	V
Junction Capacitance	C_J	$V_{pin5} = 5\text{V}$, I/O=0V, $f = 1\text{MHz}$, I/O-GND		0.6	0.7	pF
Junction Capacitance	C_J	$V_{pin5} = 5\text{V}$, I/O=0V, $f = 1\text{MHz}$, I/O-I/O pins		0.3	0.4	pF

Absolute Maximum Ratings (TA=25°C unless otherwise specified)

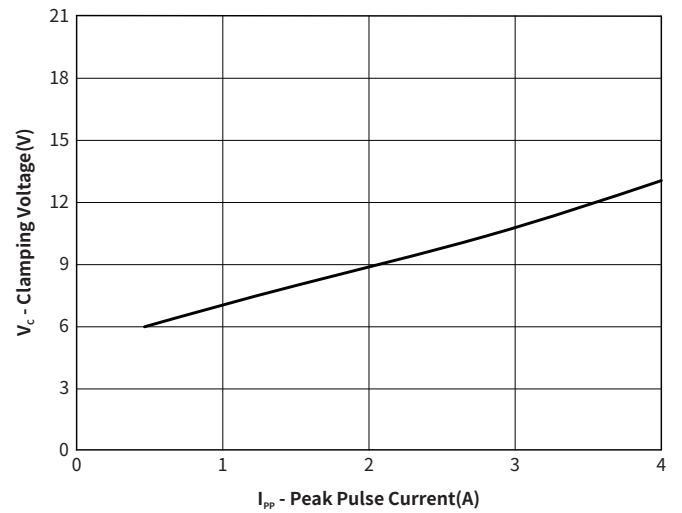
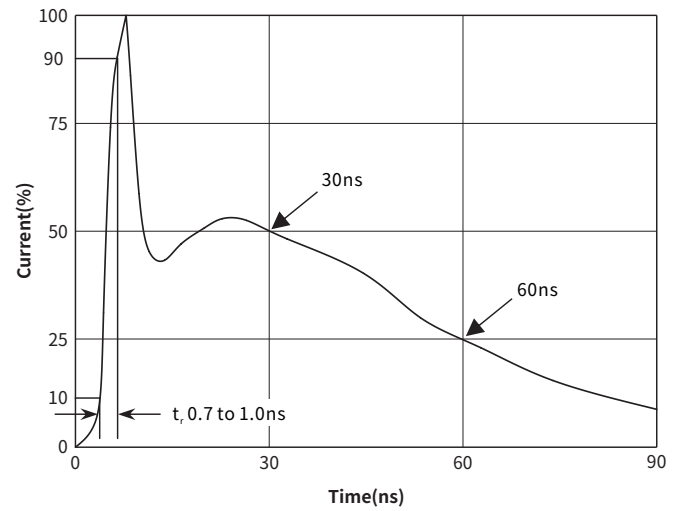
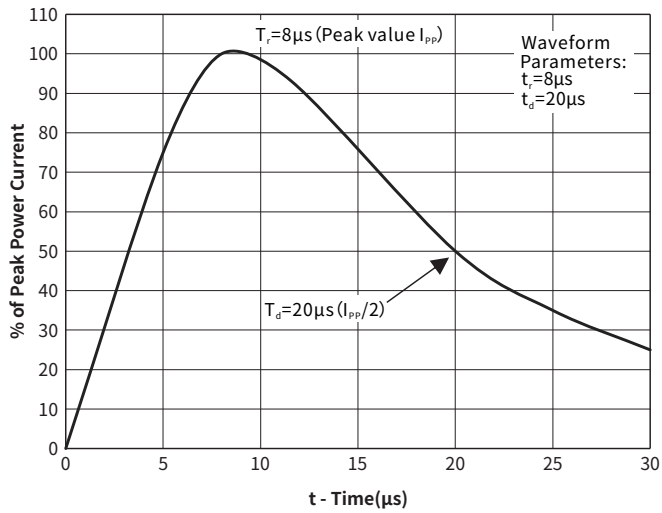
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs,I/O-GND)	Ppk	60	W
Peak Pulse Power (8/20μs,Vcc-GND)	Ppk	300	W
Peak Pulse Current (8/20μs,I/O-GND)	IPP	4.5	A
Peak Pulse Current (8/20μs,Vcc-GND)	IPP	17	A
ESD per IEC 61000-4-2 (Air)	V _{ESD,VDD}	±20	kV
ESD per IEC 61000-4-2 (Contact)	V _{ESD,I/O}	±15	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

Electrical Parameter

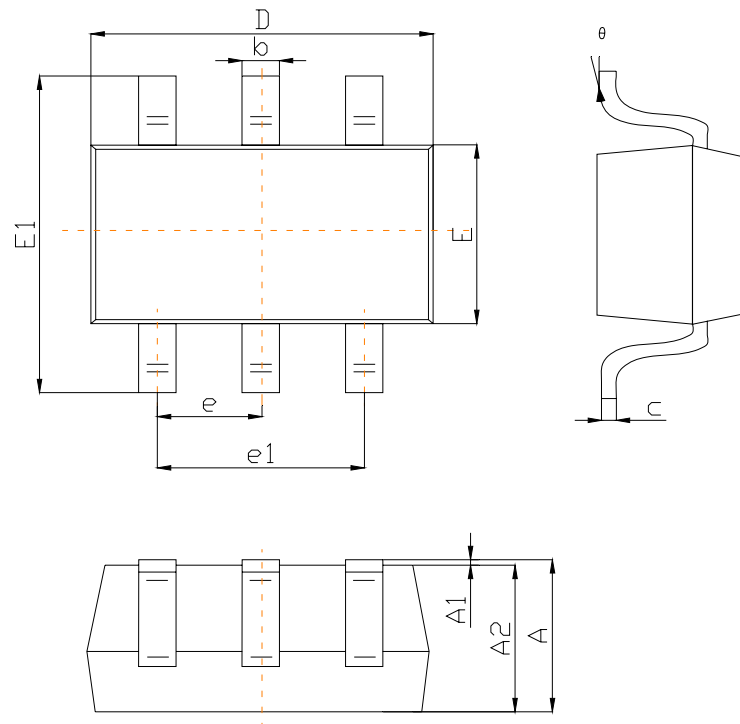
V _C	Clamping Voltage @ I _{PP}
V _{BR}	Breakdown Voltage @ I _T
I _{PP}	Peak Pulse Current
I _T	Test Current
I _R	Reverse Leakage Current @ VRWM
V _{RWM}	Peak Reverse Working Voltage
P _{PP}	Peak Pulse Power Dissipation
C _J	Junction Capacitance @ V _R =0V,f=1MHz
I _F	Forward Current
V _F	Forward Voltage @ I _F



Typical Characteristics



SOT-23-6L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100		0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0,950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
	0°	8°	0°	8°